- (85) Trailing edge flap and cockpit flap control position;
- (86) Leading edge flap and cockpit flap control position;
- (87) Ground spoiler position and speed brake selection; and
- (88) All cockpit flight control input forces (control wheel, control column, rudder pedal).
- (i) For all turbine-engine powered airplanes with a seating configuration, excluding any required crewmember seat, of 10 to 30 passenger seats, manufactured after August 18, 2000—
- (1) The parameters listed in paragraphs (h)(1) through (h)(57) of this section must be recorded within the ranges, accuracies, resolutions, and recording intervals specified in Appendix F of this part.
- (2) Commensurate with the capacity of the recording system, all additional parameters for which information sources are installed and which are connected to the recording system must be recorded within the ranges, accuracies, resolutions, and sampling intervals specified in Appendix F of this part.
- (j) For all turbine-engine-powered airplanes with a seating configuration, excluding any required crewmember seat, of 10 to 30 passenger seats, that are manufactured after August 19, 2002 the parameters listed in paragraph (a)(1) through (a)(88) of this section must be recorded within the ranges, accuracies, resolutions, and recording intervals specified in Appendix F of this part.
- (k) For aircraft manufactured before August 18, 1997, the following aircraft types need not comply with this section: Bell 212, Bell 214ST, Bell 412, Bell 412SP, Boeing Chinook (BV-234), Boeing/Kawasaki Vertol 107 (BV/KV-107-II), deHavilland DHC-6, Eurocopter Puma 330J, Sikorsky 58, Sikorsky 61N, Sikorsky 76A.
- (1) By April 7, 2012, all aircraft manufactured before April 7, 2010, must also meet the requirements in §23.1459(a)(7), §25.1459(a)(8), §27.1459(e), or §29.1459(e) of this chapter, as applicable.
- (m) All aircraft manufactured on or after April 7, 2010, must have a flight data recorder installed that also—
- (1) Meets the requirements of $\S 23.1459(a)(3)$, (a)(6), and (a)(7),

- §25.1459(a)(3), (a)(7), and (a)(8), §27.1459(a)(3), (a)(6), and (e), or §29.1459(a)(3), (a)(6), and (e) of this chapter, as applicable; and
- (2) Retains the 25 hours of recorded information required in paragraph (d) of this section using a recorder that meets the standards of TSO-C124a, or later revision.

[Doc. No. 25530, 53 FR 26151, July 11, 1988, as amended by Amdt. 135–69, 62 FR 38396, July 17, 1997; 62 FR 48135, Sept. 12, 1997; Amdt. 135–89, 68 FR 42939, July 18, 2003; Amdt. 135–113, 73 FR 12570, Mar. 7, 2008; Amdt. 135–113, 74 FR 32801, July 9, 2009]

§ 135.153 Ground proximity warning system.

- (a) No person may operate a turbinepowered airplane having a passenger seat configuration of 10 seats or more, excluding any pilot seat, unless it is equipped with an approved ground proximity warning system.
 - (b) [Reserved]
- (c) For a system required by this section, the Airplane Flight Manual shall contain—
 - (1) Appropriate procedures for—
 - (i) The use of the equipment;
- (ii) Proper flight crew action with respect to the equipment; and
- (iii) Deactivation for planned abnormal and emergency conditions; and
- (2) An outline of all input sources that must be operating.
- (d) No person may deactivate a system required by this section except under procedures in the Airplane Flight Manual.
- (e) Whenever a system required by this section is deactivated, an entry shall be made in the airplane maintenance record that includes the date and time of deactivation.
- (f) This section expires on March 29, 2005.

[Doc. No. 26202, 57 FR 9951, Mar. 20, 1992, as amended by Amdt. 135–60, 61 FR 2616, Jan. 26, 1996; Amdt. 135–66, 62 FR 13257, Mar. 19, 1997; Amdt. 135–75, 65 FR 16755, Mar. 29, 2000]

§ 135.154 Terrain awareness and warning system.

- (a) Airplanes manufactured after March 29, 2002:
- (1) No person may operate a turbinepowered airplane configured with 10 or more passenger seats, excluding any